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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,595	02/09/2004	Topas Chang	MXICP016	1768

25920 7590 07/26/2005

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EXAMINER

GANDHI, JAYPRAKASH N

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,595

Applicant(s)

CHANG ET AL.

Examiner

Jayprakash N. Gandhi

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2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “comparison unit” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Karasawa (US 2004/0073405).

Regarding claims 1-15 (as best understood), Karasawa discloses all the claimed elements of a system for monitoring wafer throughput per hour (figure 1), including a database (29), an analysis unit (27), a comparison unit (27) and an output unit (30/31), except positively disclosing having logic to perform the claimed function. Karasawa discloses having central processing unit 27, which can perform different types of functions as required. It would have been obvious to one of ordinary skill in the art to modify the processor as required per different applications to increase productivity, reliability and reduce down time.

[0129] The vendor-side computer 26 reads a predetermined parameter, for example, data based on temperature (change profile) in operating state data received from the history information database 32 (step S13). The vendor-side computer 26 compares the reference profile relating to the temperature stored in the profile information database 33 with the profile of read (measured) data (step S14). Here, in the present embodiment, in order that the processing result becomes uniform between the surfaces between the wafers W and in the surfaces, a reference profile (temperature recipe) adjusted in advance is prepared for each zone, and the measured profile and the reference profile are compared with each other for each zone.

[0130] Sequentially, the vendor-side computer 26 determines whether a

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temperature difference between the measured profile and the reference profile is within a predetermined error range (for example, 5%) (step S15).

[0131] When the temperature difference between the measured profile and the reference profile is within a predetermined error range (step S15; Yes), the operation flow is back to step S11, and the vendor-side computer 26 receives operating state data and continues to monitor the CVD device.

[0132] While, when it is determined that the temperature difference between the measured profile and the reference profile is larger than 5% (step S15; No), the vendor-side computer 26 judges that trouble has occurred in the CVD apparatus 36.

[0133] Then, the vendor-side computer 26 reports the trouble occurrence and the status to the worker at the vendor side and also reports the trouble occurrence to the person in charge of maintenance (field engineer) at the vendor side (step S16). Moreover, the vendor-side computer 26 reports the trouble occurrence and the status to the plant side arranged CVD apparatus 36, and also reports the trouble occurrence to the person in charge of maintenance at the manufacturer side (step S16).

Regarding claims 16-20, already modified system of Karasawa inherently possesses the method for monitoring wafer throughput per hour.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ando, Dor et al., Izawa et al., Ikuno et al., Obara et al., and Takeno disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jayprakash N. Gandhi whose telephone number is 571-272-3740. The examiner can normally be reached on 6:30-5:00 (Mon. - Thu.).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jayprakash N Gandhi
Primary Examiner
Art Unit 2125

jng